

# Chronic pain in the elderly over the age of 65 – a review of selected research tools

(Ból przewlekły u osób powyżej 65 roku życia - przegląd wybranych narzędzi badawczych)

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**Abstract** – Chronic pain is a frequent health issue among the elderly. The assessment thereof often becomes a significant problem for researchers due to the lack of measuring tools that are adequate for older people. The elderly constitute a specific population group as far as pain assessment is concerned, since their reliability may be questionable due to superficial identification and control of the experienced pain.

The aim of this review was to identify multidimensional measuring tools used in the evaluation of chronic pain in the elderly over the age of 65.

Pain assessment in the elderly requires a well-considered approach, with a special emphasis put on its multidimensional character, which, consequently, would help to manage pain effectively as well as to improve the quality of care.

**Key words** - chronic pain, the elderly, pain assessment.

**Streszczenie** – Ból przewlekły jest częstym problemem wśród osób starszych, co niejednokrotnie stanowi dla badaczy niemałe wyzwanie w jego ocenie. Głównie z powodu braku lub niedostatecznego doboru narzędzi badawczych do tak specyficznej grupy badawczej, gdzie ich wiarygodność może ulec podważaniu, z powodu pobieżnej identyfikacji i kontroli odczuwanego bólu.

Celem niniejszej pracy była identyfikacja zastosowania wielowymiarowych narzędzi do oceny bólu przewlekłego, u osób powyżej 65 roku życia.

Weryfikacja bólu u osób starszych wymaga przemyślanego podejścia, z uwzględnieniem wielowymiarowego charakteru, a zarazem przyczynia się do skutecznego nim zarządzania oraz poprawy jakości opieki.

**Słowa kluczowe** - ból przewlekły, osoby starsze, ocena bólu.

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- A. The idea and the planning of the study
- B. Gathering and listing data
- C. The data analysis and interpretation
- D. Writing the article
- E. Critical review of the article
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## I. INTRODUCTION

Pain is characterised by its multidimensional character and therefore it is essential to assess it by means of tools which would evaluate not only its intensity but also other dimensions. According to the neurophysiology of pain, the assessment should involve the following aspects: a sensory discriminative dimension, a motivational-affective factor, and a cognitive-evaluative one [1, 2].

In the elderly, there are differences in expressing pain complaints, which can be attributed to biological, cultural or religious factors, ethnic origin, cognitive dysfunctions and the influence of the society. Another important issue is the barriers resulting from the attitudes of the elderly who suffer from chronic pain, which, as opposed to those of other age groups, are of permanent character. Such an atti-

tude makes older people consider pain to be just a sensation that they have to bear with, as it is an inseparable part of aging and any complaints related to pain are frowned upon as a sign of weakness. Therefore, proper pain verification in the elderly, which could be followed by proper pain control, requires a well-considered, multidimensional approach [3-5].

## II. A REVIEW OF QUESTIONNAIRES APPLIED FOR CHRONIC PAIN ASSESSMENT IN THE ELDERLY

### Mc Gill Pain Questionnaire; MPQ

MPQ – McGill Pain Questionnaire allows for quantitative and qualitative pain assessment in any age group. A multidimensional character of the questionnaire makes it possible to assess pain intensity as well as its sensory and emotional aspects. The results can be classified according to three major measures: the number of words chosen, the pain rating index based on numerical values, and the present pain intensity [6].

### Brief Pain Inventory – Short Form

Brief Pain Inventory created by Charles S. Cleeland (Pain Research Group, 1991) has become one of the most frequently and commonly applied tools for clinical pain assessment. Not only does it assess pain intensity but it also specifies the degree to which pain interferes with a patient's everyday routine and emotional life. Originally, the questionnaire was applied to measure cancer pain; however, further research has proven that it can be used in a much wider range of clinical conditions [7,8]. The tool takes into account the assessment of the type of pain, its intensity, the type of treatment, the degree of relief, and also the way in which pain impedes patients' general activity, mood, the ability to walk, their work, relationships with other people, sleep hygiene as well as the ability to enjoy their life [9].

The Brief Pain Inventory has been adapted to Polish standards by prof. Wojciech Leppert (Poznan University of Medical Sciences) and prof. Mikołaj Majkiewicz (Medical University of Gdańsk). The evaluation of the questionnaire involved the assessment of its psychometric features in the case of cancer patients (the accuracy and reliability of the scale), pain assessment and pain control. The importance of this tool was verified by means of factor analysis including two dimensions: pain intensity and pain interference. The analysis has confirmed the high value of the questionnaire (Cronbach's alpha coefficient: 0.863-0.998) [10].

### Pain Attitudes Questionnaire; PAQ

The experience of pain consists of the following components: sensory, emotional, and cognitive. In the process of pain assessment, patients' pain-related attitudes and beliefs, which were formed during specific stages of development, play a prominent role [11, 12]. Researches mostly examine the cognitive role of pain perception in groups of young people, whereas such an evaluation is usually ignored in groups of older patients. This constitutes a challenge for future researchers to make a detailed analysis of the pain-related attitudes and beliefs of elderly people [13]. The assessment of the elderly patients' attitude towards pain is frequently used as a basis for the treatment. Such background information helps to determine the motivation and to explain interpretations and emotions which accompany the pain.

The structure of the Pain Attitudes Questionnaire (PAQ) is based on two categories of attitudes: stoicism and cautiousness. These categories present pain tolerance and control, commitment, expressions and emotional experience connected with pain. A psychometric evaluation of the scale has confirmed its reliability (Cronbach's alpha coefficient: 0.75-0.86) and accuracy. This tool is the basis for monitoring the attitudes of stoic character, such as reluctance to report pain or a belief that the ability to control and bear pain has a deeper, superior meaning. It also involves the dimension of cautiousness, which can be observed in the doubtful attitude towards pain experience and reluctance to externalise emotions caused by pain. The PAQ scale makes it possible to determine social attitudes of the elderly and it also shows socio-cultural differences and changes in the perception of processing pain experience (attachment 1) [14].

In order to improve the tool for the assessment of attitudes towards pain, the authors have modified the existing version of the questionnaire and introduced further dimensions, thus creating the Pain Attitudes Questionnaire – Revised. The final version of the questionnaire consists of 5 dimensions, accompanied by specific factors. The scale includes the following dimensions: Stoic-Endurance (SF/5 factors), Stoic-Reticence (SC/4 factors), Stoic-Superiority (SS/5 factors), Cautious-Self-doubt (CS/6 factors), and Cautious-Reluctance (CR/4 factors). The revised scale is applied to adults suffering from chronic pain [15,16].

### Geriatric Pain Measure; GPM

Geriatric Pain Measure (GPM) is another scale applied to assess pain in the elderly. It contains 24 questions (attachment 2) or 12 questions in its short version (GPM-12). It includes the aspects of pain which are likely to affect the

functioning of an older patient. It takes into account the aspect of a negative impact which the pain intensity may have on the patient's mobility, which is a key factor contributing to the development of dysfunctions and the exclusion from social life. Such an isolation may pose a risk of developing further health problems and, consequently, losing independence. The questionnaire also includes questions about the patient's mood, relations with other people and the quality of life [17].

### III. SUMMARY

Pain in the elderly is often diagnosed relatively late, which makes it more difficult to plan a proper intervention. The problem may be caused by the way in which the elderly describe pain, and is determined by specific differences typical of this age group. Pain assessment can be a challenge for researchers as there are numerous potential sources of pain and a variety of medical problems which can cause it. The process of ageing entails various neuroanatomical and neurochemical changes. These processes play an important role in reporting pain. However, cultural changes and social differences in elderly populations might turn out to play a decisive role in this problem [18].

Due to the lack of specific tools to assess pain in the elderly, the authors of the articles have commenced the process of adapting the Pain Attitudes Questionnaire and the Geriatric Pain Measure to Polish standards.

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